Origen[æ]

VF110 User Guide

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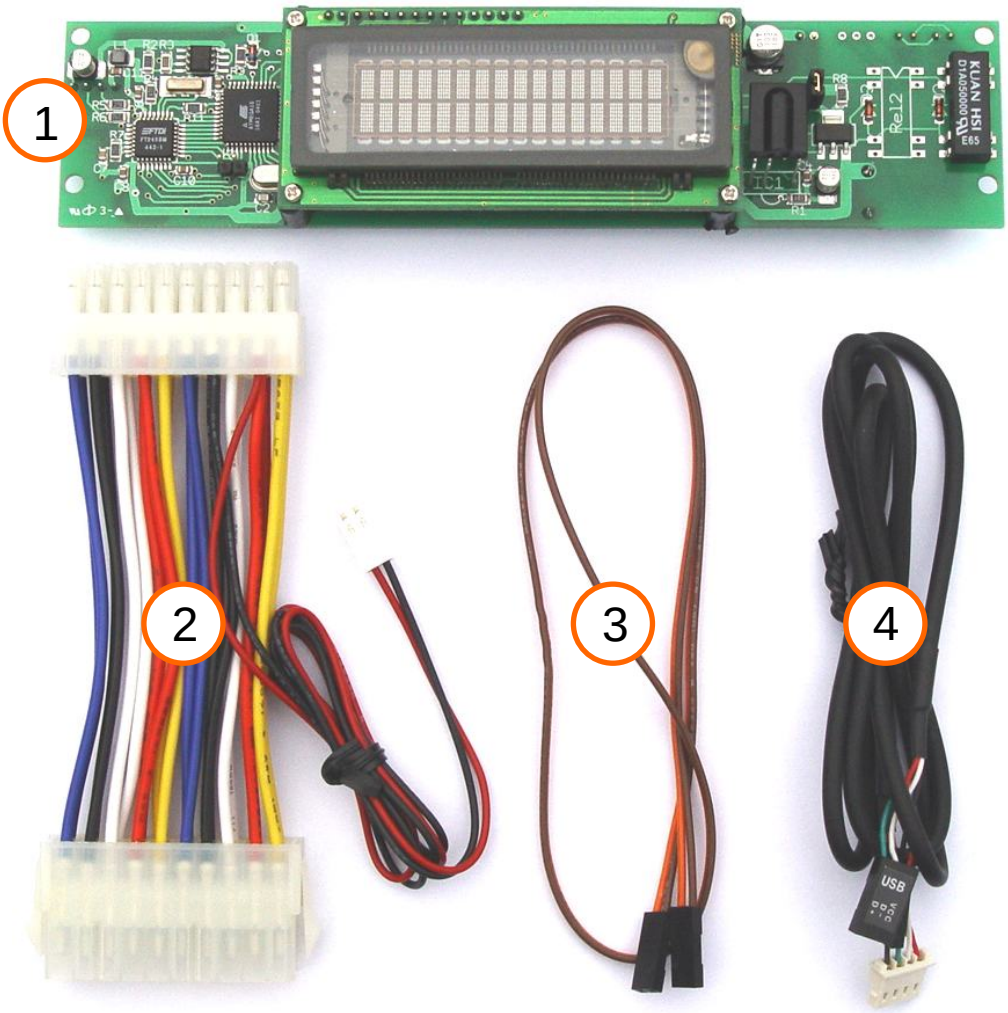
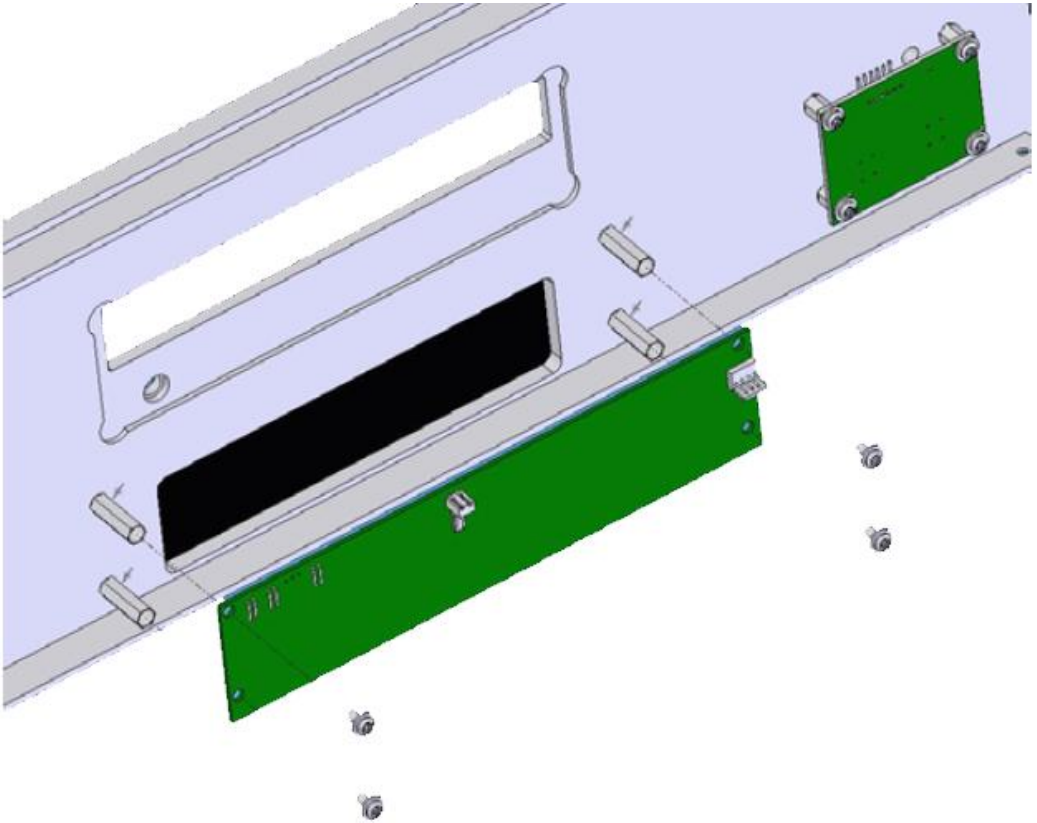
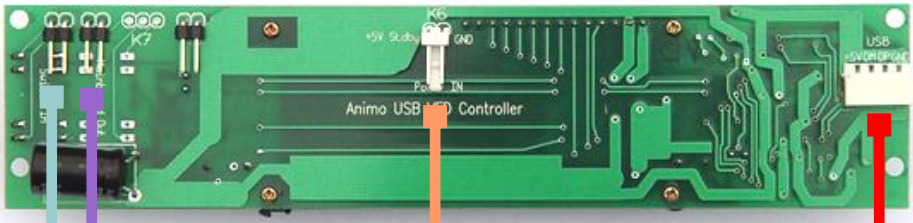


1. VFD/IR Module
2. ATX Power Cable
3. Motherboard Power Switch Cable
4. Internal USB Header Cable

Please note: Before installing any hardware please ensure that the power is switched of and disconnected from any live source. VFD Modules carry a high voltage that can cause electricution



Remove drive chassis to allow access to the VFD case mounts. Attach the VFD module using the 4 screws provided.



To Motherboard ‘Power On Switch’ Header

To Case Power On Switch

To ATX Power Supply Cable

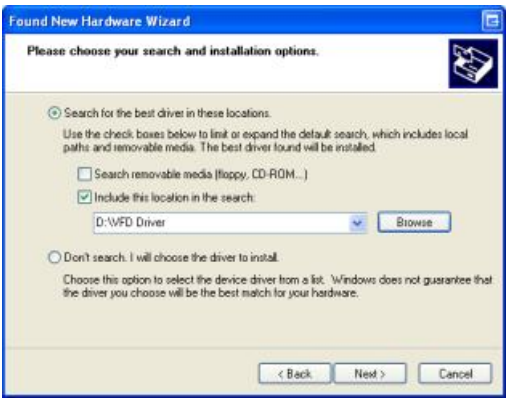
To Motherboard Internal USB Header

USB Pin Configuration

RED: VCC+
WHITE: D-
GREEN: D+
BLACK: GND

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
IRTrans USB
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

(1) If the hardware has been installed correctly, when windows boots for the first time you will be prompted by the '*Found New Hardware Wizard*'. Make sure the Origen CD is in your ROM drive, select '*Install from a specific location (Advanced)*' and click 'Next'


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
D:\VFD Driver
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

(2) Make sure '*Search for the best driver in these locations*' and '*Include this location in the search*' are selected. Then click 'Browse'

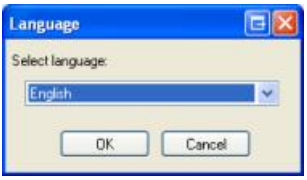
(3) Browse to your ROM DRIVE and select the folder 'VFD Driver', then Click 'OK'. When returned to the previous dialogue box, click 'Next'

Hardware Installation
IRTrans USB
has not passed Windows Logo testing to verify its compatibility with Windows XP.
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

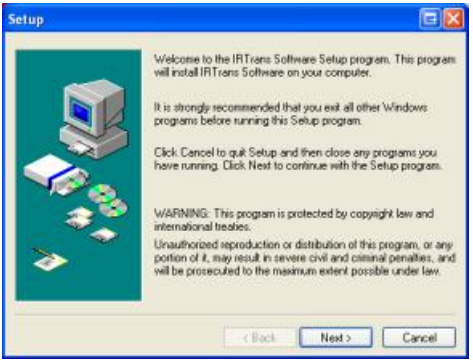
(4) Click 'Continue anyway' at the compatibility prompt, then click 'Finish on the screen below to complete the driver installation.

DIGN Installation CD
Welcome to the DIGN HVS Installation Menu.
Please select an action from the list below
DIGN HVS Installation Guide
DIGN VFD User Guide
DIGN VFD Software Setup
Back to Main Menu

(1) If you are installing the VFD software from the CD, select your case model and click 'DIGN VFD Software Setup' alternatively download the software from our website, unzip and run setup.exe

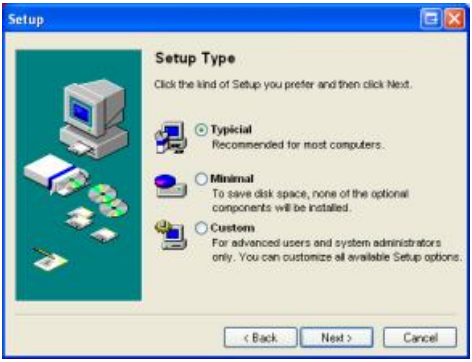


(2) Select Language
(3) Click Next


Setup
Welcome to the IRTrans Software Setup program. This program will install IRTrans Software on your computer.
It is strongly recommended that you exit all other Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

Setup
Destination Folder
Setup will install IRTrans Software to the following directory.
To install to this directory, click Next.
To install to a different directory, click Browse and select another directory.
You can also chose not to install IRTrans Software now by clicking Cancel to exit Setup.
Destination Folder
C:\Program Files\IRTrans
Browse...
< Back
Next >
Cancel

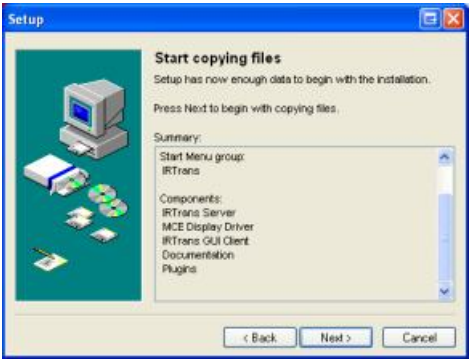
(4) Select destination folder


Setup
Setup Type
Click the kind of Setup you prefer and then click Next.
Typical
Recommended for most computers.
Minimal
To save disk space, none of the optional components will be installed.
Custom
For advanced users and system administrators only. You can customize all available Setup options.
< Back
Next >
Cancel

(5) Select installation type, typical is recommended.

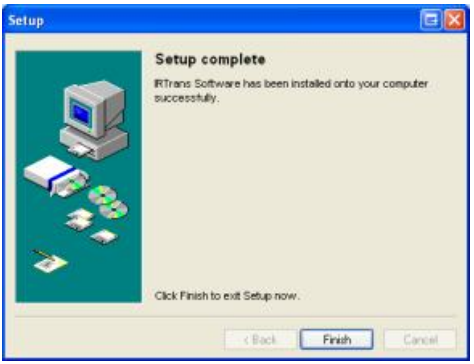
Setup
Start Menu entries
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the list. Click Next to continue.
Start Menu Group: IRTrans
If you do not want any icons to be created select the following option.
Do not create any icons.
Click Next to use the above entered path in Start Menu.
< Back
Next >
Cancel

(6) Select start menu group.



(7) Click '*Next*' to begin the install.

(8) If the '*could not rename file*' and '*could not delete file*' message appears, ignore this message and click '*OK*' to continue.



(9) Setup is now complete.

- **IRTrans CCF Format (for Commands used by the Philips Pronto™):**

[REMOTE]
[NAME]ccf

[COMMANDS]
[1][CCF]0000 0067 0000 000d 0060 0018 0018 0018 0018 0018 0018 0018 0018 0018 0018 0018 0018 0018 0018 0030 0018 0018 0018 0018 0018 0018 0018 0030 043c
[v+][CCF]0000 006d 0022 0002 0155 00aa 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0014 0016 0014 0016 0014 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 05e7 0155 0055 0016 0e3b

The CCF Format allows to use the huge number of IR Codes available for the Philips Pronto™ for the IRTrans system. Currently all Mode 0, 1, 5 and 6 (first Field = 0000, 0001, 0005, 0006) Commands can be used. These are almost all files available for example at www.remotecentral.com. The codes that are used have to be extracted using the Pronto Edit™ Software. Informations about the Philips Pronto™ can be found at www.pronto.philips.com. New command files can easily be created based on the file ccf.rem.

When copying definitions care should be taken to change the name of the remote in the [REMOTE] section of the file..

In any case the terms of license provided Philips Corporation for the Pronto Edit Software should be observed!

IRTrans GUI Client

The VB client allows learning of IR Commands. Furthermore IR Commands can be sent and you can set up a simple Remote Control. Even commands that are not included in the simple Remote Control can be sent. In addition, all the parameters of all IRTrans units connected to the serial bus can be configured. The GUI client uses the IRTrans Server Socket (21000) to connect to the server.
The GUI Client is a Windows program, nevertheless via a TCP/IP Network it can also control a system connected to a LINUX Server. When starting the Client the Hostname or IP Address of the IRTrans Server can be entered as a command line Parameter. If it is not entered this setting defaults to localhost.

Currently the GUI Client supports German and English. The language is selected based on the language of the Operating System.

After starting the program the GUI Client shows a sample Remote Control. It is defined in the file remote.irm in the working folder of the GUI Client. It can easily be configured by editing this file. Of course that sample Remote Control does not work until the corresponding commands have been learned.

Main window of the IRTrans GUI Client

The format of the file remote.irm:

```
[MAIN]
[FRMPIX]400,300
[SEP]0,45 [END]500,45

[MOD]10,10          [SIZE]40,25[PANEL]TV
[MOD]60,10          [SIZE]40,25[PANEL]CD

[END]

[CD]
[FRMPIX]460,280
[LBL]10,250         [SIZE]300,30[TEXT]CD[FONT]14

[POS]10,10          [SIZE]100,30[TEXT]Power On [REMOTE]Yamaha
[COMMAND]PowerOn
[POS]120,10         [SIZE]100,30[TEXT]Power Off [REMOTE]Yamaha
[COMMAND]PowerOff
[POS]10,50          [SIZE]100,30[TEXT]Vol - [REMOTE]Yamaha
[COMMAND]Vol-
[POS]120,50         [SIZE]100,30[TEXT]Vol + [REMOTE]Yamaha
[COMMAND]Vol+
[POS]230,10         [SIZE]100,30[TEXT]CD [REMOTE]Yamaha [COMMAND]CD
[POS]340,10         [SIZE]100,30[TEXT]Tuner [REMOTE]Yamaha
[COMMAND]Tuner
[POS]10,200         [SIZE]100,30[TEXT]Prev Track [REMOTE]Sony
[COMMAND]Prev
[POS]120,200        [SIZE]100,30[TEXT]Play [REMOTE]Sony [COMMAND]Play
[POS]230,200        [SIZE]100,30[TEXT]Next Track [REMOTE]Sony
[COMMAND]Next
[POS]340,200        [SIZE]100,30[TEXT]Stop [REMOTE]Sony [COMMAND]Stop
[END]
```

This excerpt shows a sample configuration

[Main] section defines the part of the remote that is always visible. This section should be used to place commands to select different devices or commands that should be available with every device (like
Volume +/-).

[MOD] lines define commands used to switch between different panels of the remote. In addition these remotes appear in the „Remotes“ menu.

[FRMPIX] is used to define the size of different panels of the remote (in Pixels). That allows to use different sizes for different panels of the remote.

[LBL] allows to insert texts in different sizes.

[POS] finaly defines the Remote Buttons itself. They can have different sizes and, of course, a text.

[REMOTE] and ***[COMMAND]*** are used to assign the remote commands. Commands that are not defined in the current IR Database appear in Gray (disabled).

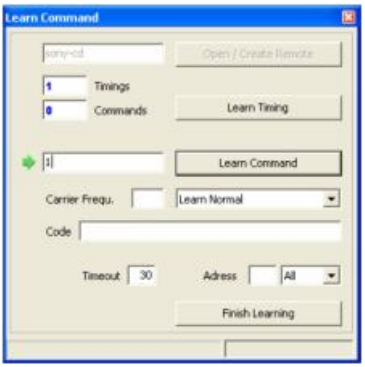
Using the Learn Command in the Mode Menu new IR Commands can be learned. To learn commands a remote control is entered at first. This is the name of the ASCII File used by the database to store the commands of this remote. If the remote control already exists the new commands will be appended.
First the Name for a new Remote control is chosen and entered. Of course it is also possible to enter the name of an existing Remote. Then the newly learned commands are added to the existing ones.

After the remote has been defined, a timing has to be learned. This timing will be the basis for the commands. To learn the timing the remote has to be kept in a straight line with the receiver. The distance does not matter to much but the IR ray should reach the receiver in a direct line and not reflected by walls.

The advantage of the separate learning of the timing is, that the commands can be learned very easily afterwards because the exact timing does not matter. In general it is best to press the key of the remote only once and for a short period of time. If you hold the key depressed for a longer time the recognition of the codes may be compromised by special repeat codes the remote control uses.

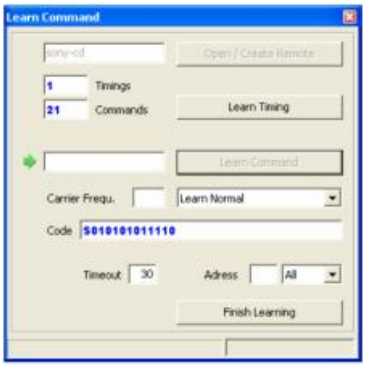
Now a Timing can be learned. During that procedure the IRTrans measures the Pulse
lengths of the IR Codes and analyzes the Protocol. This is done by shortly pressing one of
the Remote controls buttons. When learning a timing the Remote control
should face the IRTrans directly, not reflected by wall as that might affect the timings learned.

After the timing is learned, the IR commands can be learned. Every command gets an alphanumeric name that is used to identify the command later on. The normal learn mode is based on the timing learned before. If you relearn a command already in the database, the old command will be replaced by the new one.



Next the IR Commands are learned. To do that a command name is entered and the learning is started by pressing Learn Command. Now the corresponding Remote Button is pressed.
To learn a command the Button of the Remote Control should be pressed very short.

This procedure is repeated for every Remote Button. The VB Client always counts the
Commands and Timings and shows the Code of the learned Commands.



For special purposes there are additional Learn modes:

- **Repeat Code.** This mode learns Repeat Codes. These codes are sent if a key is held depressed. Not all remote systems use repeat codes. You only need to learn them if keeping a button depressed does not work. You only need to learn these codes for keys like “Vol-Up” or other keys you like to hold down. To learn these codes you need to keep the corresponding button of the remote control pressed a little bit longer (like 1s).

- **Learn command with timing.** Some remote controls use different timings for different commands. If some commands can not be learned with the recorded timing, this function allows learning them. The timing for every command is stored individually.

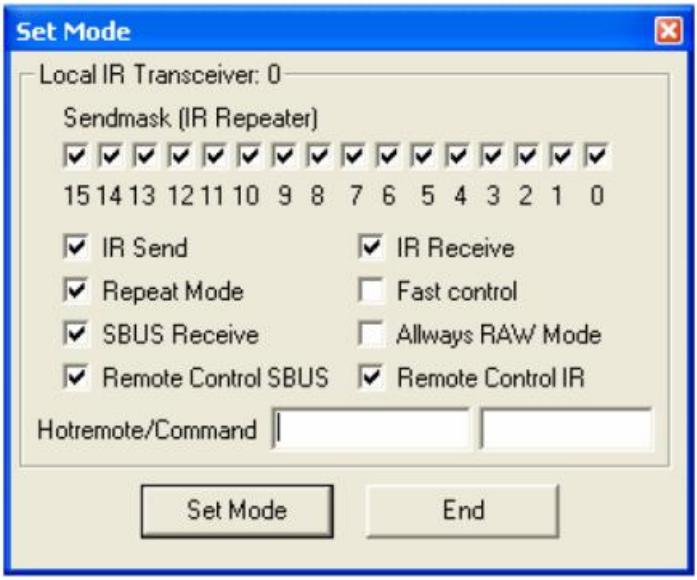
- **Toggle Command**. Some remotes use Toggle bit and command variation. They send different codes every time you press a button. This allows easier detection of keys that are held down. If you use this option you have to learn the same command more then once (normally 2-5 times is enough). Every code is stored individually. You do not need this option for the popular Philips RC5 / RC6 codes. They are recognized by the IRTrans firmware and the firmware takes care of the Toggle Bits. RC5 / RC6 are the only popular systems using Toggle bits.

- **RAW Mode.** Certain remotes use codes, which are very special and can not be decoded by IRTrans on the fly. These codes are rare but some exist. For instance some light control systems use very special codes as the receivers are very simple. Using RAW mode IRTrans can learn almost every Code and send it again. If you want to use RAW Codes to control the PC, the IRTrans has to be set into RAW mode in the status menu. You do not need to do that to learn and send RAW codes. If this mode is activated, only RAW codes can be used to control the PC. However you can still learn and send decoded commands. If the RAW mode is activated, RAW codes are also used on the serial bus. Because there is more data transferred and the recognition of commands is not as safe as in decoded mode the RAW mode of the IRTrans should only be enabled if you need to control the PC using a special remote. You can learn and send RAW codes even without activating the RAW mode.

- **RAW Repeat.** RAW Codes can also be learned as repeat codes. Here you also have to press the key a bit longer. All learning modes can be used via the serial bus, too. It does not matter, which IRTrans unit is used.

The Status page can be reached through the Menu Option Mode-Device Status. All selections in this Page will be stored permanently in the EEPROM of the IRTrans. If more then one IRTrans Module is connected the correct one has to be selected in the Device list first.

If your IRTrans Module does not work correctly (e.g. no IR Receive) you should first check if the options of the Status Page are set correctly.



- **The Sendmask** defines which source addresses are accepted as source for IR commands to be repeated.
- **IR Send.** This flag activates the IR transmitter.
- **IR Receive.** This flag activates the IR Receiver.
- **SBUS Receive.** If this flag is set, IRTrans reacts on commands coming through the serial bus.
- **Remote Control IR.** This flag activates the IR Remote control mode for a connected PC.
- **Remote Control SBUS.** This flag activates the Remote control mode for a connected PC through the serial bus.
- **Always RAW Mode.** This mode allows controlling the PC using RAW Codes. It is only needed, if the PC has to be controlled using a remote control that can only be learned in RAW mode. Not all controllers on the serial bus have to use this. Typically only the controller connected to the PC has to use this mode. **If you use this special mode, every command that will be used to control the PC has to be learned as a RAW code. Commands that will only be sent can still be learned as decoded commands.**
- **Fast Control.** This is a special mode to control the PC very fast and easy. To achieve this, the received codes are decoded faster then normal. RAW codes will be decoded in a limited length; normal codes will be decoded without taking repeats into account. This makes it easier and faster to detect pressed and held buttons. However, that can lead to problems using the Repeat mode on the serial bus. Therefore it makes sense to activate this flag only on controllers connected to the PC. Because of the latency of the serial bus this mode does not make to much sense on controllers not directly connected to the PC. If you are learning codes that should be sent again, never use this mode while learning the codes! If you are learning RAW codes to control the PC this mode has to be switched on during learning. If you are learning decoded codes, it should be switched off while learning.
- **Hotremote/Command.** If you want to switch on the PC using the IRTrans PowerOn module, you have to specify the command to use here. (Remote + command to use). If you do not use the Power On module you can leave these fields blank.

  If you use the IRTrans in RAW mode this has to be a RAW command, too.

The ASCII / Batch Client

Works on Windows and LINUX. When the Server is running on the same System the Client can be started with the Command line *./irclient localhost*. The Client allows Learning and Sending of Commands and the setting of the Status flags of the IRTrans. Normally it works Menu-Driven but it can also be used to send commands with Programs and scripts. To do that it is started with *irclient <hostname> <Remote> <Command>.* If needed an Adressmask to control multi-zone systems can be used, too. When used it will be the 4th parameter.

When using the Menu Driven Mode it can also be used to control the IRTrans Firmware settings.

Using LIRC Clients

Every LIRC client can be used with IRTrans. The IRTrans server implements a standard LIRC application socket (only LINUX) and a standard LIRC TCP/IP socket to be compatible with LIRC. Every LIRC client can be used with IRTrans. Using LIRC clients you can remotecontrol your PC and send commands. Only the learning of commands has to be done through the GUI or ASCII client as the LIRC protocol does not support learning of commands.

The irserver completely replaces lircd. That means that the LIRC server (lircd) should not run on the system.

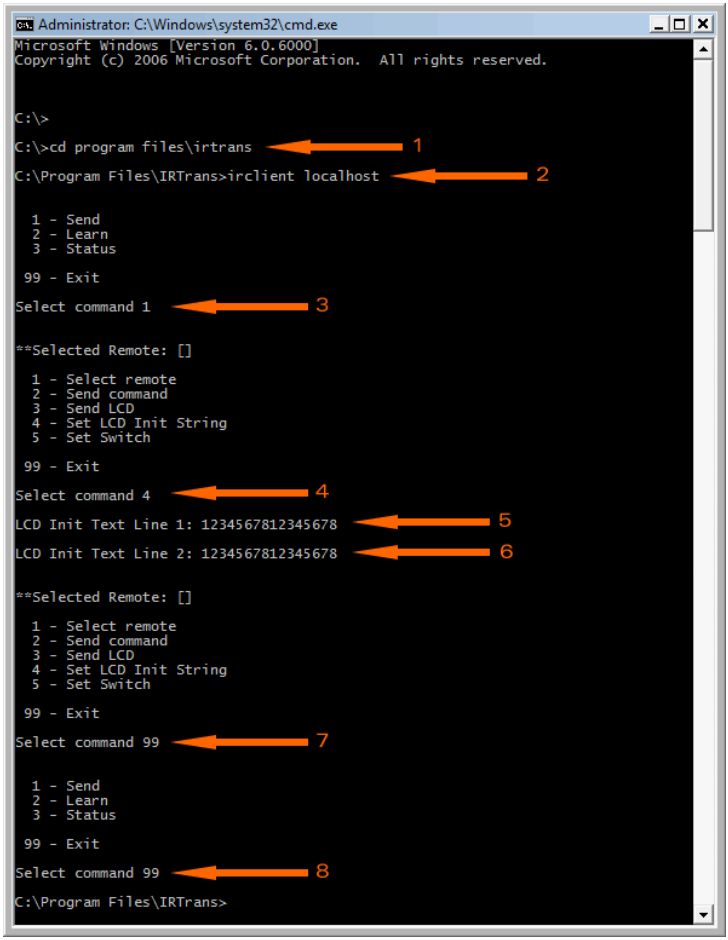
There can be several LIRC and IRTrans clients connected to the server at the same time. The TCP/IP socket allows connections from different clients over the network. A very versatile client is irexec, delivered with LIRC. It allows executing any command triggered by an IR command received by IRTrans. It is also possible to send commands. That can be used to store complex commands: Switch on your Receiver and TV if you start the DVD player on the PC …
The IRTrans Server is fully compatible with the LINUX VDR system. It is used in the same way as LIRC. Of course you have to learn your commands the right way, because the name of the commands is fixed inside VDR.

Changing the Rom Boot Message

Follow the steps below ensuring that IR Trans software is installed and running correctly:

1. Open a command prompt and go to the IRTrans install folder
2. Type ‘irclient localhost’ and press enter
3. You will get a prompt with 3 options. Type ‘1’ (send) and press enter
4. At the next prompt type ‘4’ (set LCD init string) and press enter
5. Enter up to 16 characters that will be displayed on the first line of the VFD and press enter
6. Enter up to 16 characters that will be displayed on the second line of the VFD and press enter
7. Type ‘99’ to exit and press enter
8. Type ‘99’ to exit the program and close the command prompt window

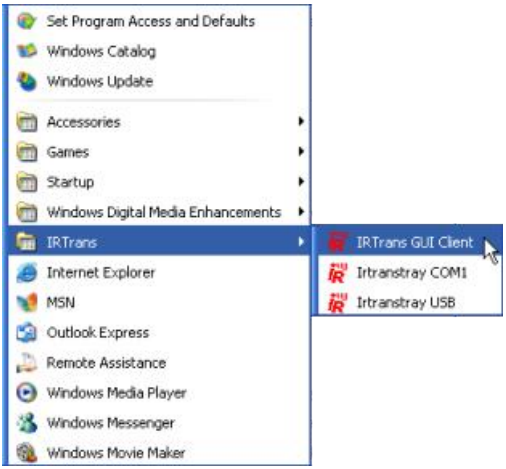
When you next power off then on the VFD, the display will show the new text.



Setting Up Power On Feature

The DIGN VFD Module is capable of switching a HTPC off or on from cold state. For this feature to work, you must ensure that the motherboard power on switch is connected to the VFD Module. IR Trans must also be installed.

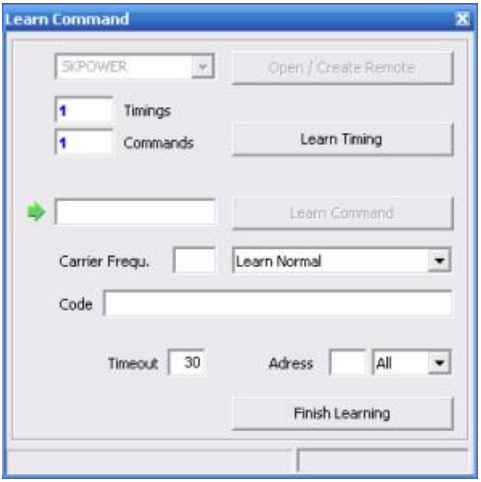
1. Locate and Run the 'IR Trans GUI Client'



2. Click on 'Learn Command'

3. In the Open / Create Remote box type "SKPOWER"

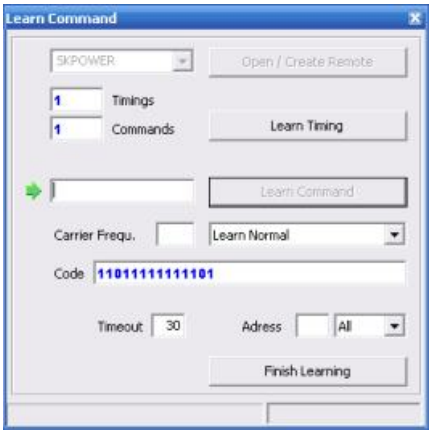
4. Click 'Learn Timing' and press any button on the remote you are using.



A number should appear in the 'Timings' and 'Commands' box.

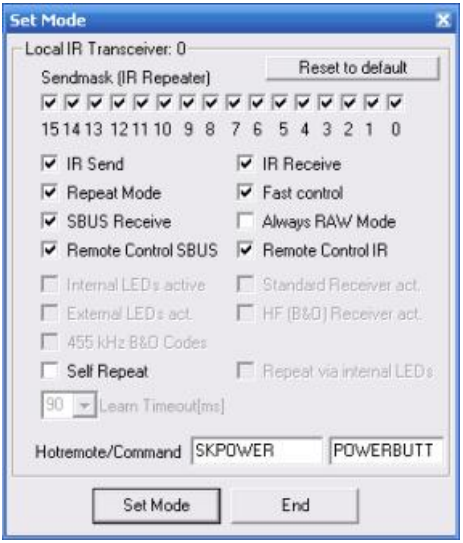
5. In the ‘Learn Command’ box type “POWERBUTTON” then click the ‘Learn Command’ and press the ‘Power Button’ on the remote.

6.The ‘Code’ box should now show a string on 0’s and 1’s. Click Finsh



7. In the IR Trans GUI Client click on ‘Device Status’

8. In the Hotremote/Command input boxes enter “SKPOWER” in the first box and “POWERBUTTON” in the second. Then click ‘Set Mode’



9. The Power Button on the remote will now function like the Power Button on the case. You can change what the Power Button does by going into ‘Power Option Properties’ in Windows.

Notes